

Steam Boiler Replacement Osawatomie State Hospital Osawatomie, Kansas

State of Kansas Social & Rehabilitative Services



The Division of Facilities Management and Social & Rehabilitative Services chose **DRG** to provide the engineering design services needed for replacement of boiler No. 2 at Osawatomie State Hospital. Boiler No. 2 was one of four boilers in the Power Plant that provide steam throughout the hospital campus. The existing watertube boiler had a capacity of 38,000 lbs of steam per hour. This boiler was over 40 years old and had to be taken out of use due to excessive deterioration. It was also known to contain asbestos. **DRG** analyzed the future anticipated steam use of the campus and recommended a smaller boiler be installed that would: be more efficient, respond more quickly to fluctuations in steam usage, and cost less. In order to standardize the equipment in many of their facilities, the State of Kansas requested a firetube boiler. **DRG** specified a new 25,000 lb/hr firetube boiler be installed that could operate on either natural gas or No. 2 fuel oil. To assure performance of the boiler, **DRG** specified the boiler be tested both at the manufacturing plant and on site after installation. To expedite replacement, purchase of the boiler was bid separately from the installation which allowed manufacturing of the boiler to begin while the installation was being designed and the construction contract bid and awarded. To avoid disruption to the 24/7 operation of the Power Plant, the existing boiler was specified to be removed whole. This requirement minimized the risk of potentially releasing asbestos fibers into the facility during abatement activities. **DRG** retained the services of a registered architect to design the removal and replacement of a portion of the exterior wall of the facility in order to remove the existing boiler in this manner.

DRG was also contracted to provide engineering services during the bidding and construction phases of the project.



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